

SI
Mc-2, Payette.

WORKING PLAN

for

Season, 1914.

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Idaho Yellow Pine, : > Object: To determine the best method
Effect of Different : : of cutting in the Idaho yellow pine
Methods of Cutting. : : forest.
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In 1913, three five acre plots were located on Carpenter Creek and cut over by the seed tree method. Plot #1 was located on a southeast slope and cut 79% by volume; Plot #2 was located on a north slope and cut 93% by volume; Plot #3 was located in a basin and cut 91% by volume. Two reproduction 10' X 50' plots designated "A" and "B" were established on each of the three plots.

The work for 1914 should consist of: (1) - a resurvey of the three plots already established on Carpenter Creek; (2) - the establishment of three five acre plots each, or twelve plots in all, by the group selection method, the scattered selection method, the strip method and the clear cutting method with blocks or groups of seed trees; and (3) - special work on yellow pine reproduction as recommended under, Mr. Payette, western yellow pine, and approved by the Central Committee as part of this project.

In the resurvey of the plots established on Carpenter Creek data should be taken on the damage done by logging to the remaining stand, i. e., the larger trees and would also be desirable for the seedling sizes. The latter may be obtained as a part of the data on natural reproduction of yellow pine. The trees remaining above 4" DBH should be given permanent numbers either by paint or aluminum tags. This was not done when the plots were established only temporary numbers being placed on a bark blaze.

In establishing the plots by the other four methods of cutting in the original plan, one by each method should be on a south slope or a ridge, one on a north slope and one in a basin or bench. In the group selection method all merchantable trees should be marked on irregular patches or groups not to exceed one acre in extent. These groups should cover about one-half of the area of the plot, and the spaces between the groups should be at least half as wide at the narrowest point as the average diameter of the groups. In the scattered selection method individual mature trees should be marked taking about one-half of the entire merchantable stand. In the strip method all merchantable trees are to be marked on strips two to three chains wide leaving intermediate strips of two chains undisturbed. In clear cutting with blocks or groups of seed trees, small compact groups will be reserved for seed, each, group containing two or three good seed trees, together with the incidental, intermediately suppressed and small trees.

One or two such groups should be located on each acre, and so selected as to secure small compact groups of thrifty trees well suited to withstand wind damage. The main purpose of this method is to eliminate wind damage and to have only such trees in the groups as will successfully hold over for another rotation.

In these plots all trees over 4" DBH should be numbered and tallied by DBH log length for those marked and those left in order that the volume cut and the volume left may be computed. All trees of breast height and including 4" DBH should be counted.

All numbered and counted trees should be located on a map, the former by number and the latter by dots. Reproduction under breastheight will be shown by reproduction plots of which there will be two each containing 500 square feet on each of the larger plots. These plots should also be mapped showing the location of each seedling and located on the map of the larger plot. The seedlings should be recorded by height and age classes and described as to general conditions, amount of shade, seed trees, etc. The crown class and width should be given for the numbered trees.

In the record of each plot there will be three parts: (1) - map or diagram (without the use of colors in order that it may be readily duplicated), (2) - tabulated data and (3) - descriptive data.

In the natural reproduction study of western yellow pine, contemplated by project Mr. Payette, (now combined with this project) use should be made of the two reproduction plots required with all the large plots. So far as practicable record

should be kept by rain guage of the rainfall. Soil moisture determinations should be made two or three times during the growing season, at beginning, middle and close, and light readings taken by a Clement's photometer. This will require a soil drying oven, two dozen aluminum soil cans and a photometer, A scales is already provided and a rain guage available on the Forest.

Date of completion.

Indefinite

All plots are to be established this year.

Estimated Cost.

Calendar year 1914 ----- \$250.00